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ATTORNEYS FOR PLAINTIFF

UNITED STATES DISTRICT COURT
SOUTHERN DISTRICT OF NEW YORK

----- X
GERTRUDE NEUMARK ROTHSCHILD,

Plaintiff,

vs.

CREE, INC.,

Defendant,
----- X

05 CV. 5939

No.

JURY TRIAL DEMANDED

FILED
U.S. DISTRICT COURT
2005 JUN 7 P 3:41
S.D. OF N.Y. W.P.

Plaintiff Professor Gertrude F. Neumark Rothschild (“Professor Neumark”),
through her attorneys, Sidley Austin Brown & Wood LLP, for her Complaint against Defendant
Cree, Inc. (“Cree”), alleges as follows:

NATURE OF THE ACTION

1. This is a civil action for patent infringement arising under the patent laws of the
United States, Title 35, United States Code.

PARTIES

2. Professor Neumark is a resident of the State of New York, with her principal residence at 153 Old Colony Road, Hartsdale, New York.

3. Defendant Cree is incorporated under the laws of the State of North Carolina with its principal place of business located at 4600 Silicon Drive, Durham North Carolina.

JURISDICTION AND VENUE

4. This Court has subject matter jurisdiction over the claims in this action pursuant to 28 U.S.C. §§ 1331 and 1338(a).

5. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b), (d) and 1400(b).

6. Upon information and belief, defendant Cree is currently doing business in the United States, including this judicial district, by undertaking systematic and continuous activities toward using or offering to sell, or causing others to undertake systematic and continuous activities toward making, using or offering to sell, or causing others to make, use, offer to sell or sell numerous products including, but not limited to, Light Emitting Diodes (“LEDs”) and Laser Diodes (“LDs”). Defendant Cree is also doing business in the United States, including this judicial district, through defendant Cree’s web site, available to Internet users in this judicial district. Upon information and belief, defendant Cree is currently doing business in the United States, including this judicial district, through its participation in trade shows to engage in the sale, development and marketing of LEDs and LDs. Defendant Cree derives substantial revenue from interstate and international commerce, including substantial revenue through one or more of its subsidiaries and/or distributors from goods used or consumed or services rendered in the State of New York and this judicial district. Defendant Cree has committed, and unless enjoined

will continue to commit, tortious acts without the State of New York that defendant Cree expects or should reasonably expect to have consequences in the State of New York.

FACTUAL BACKGROUND

7. Professor Neumark is Howe Professor Emerita of Materials Science and Engineering, Professor Emerita of Applied Physics and Applied Mathematics and a Special Research Scientist, Columbia University, New York, New York. She was the first woman to hold a named Chair in the Faculty of Engineering and Applied Science at Columbia University.

8. Professor Neumark's status at Columbia recognizes a lifetime of extraordinary intellectual and academic achievement including: Bachelors of Arts degree in chemistry, *summa cum laude*, in January 1948 from Barnard College, Columbia University, and membership in *Phi Beta Kappa*; Rice Fellowship, Barnard College (1948) (the only Fellowship awarded to the graduating class for graduate study in sciences); Dana Fellowship, Radcliffe College, Harvard University (1949); Master's Degree in chemistry, Radcliffe College (1949); Ph.D in chemistry, Columbia University (1951); Anderson postdoctoral fellowship, American Association of University Women (1951); Visiting Professor of Materials Science, Department of Mining, Metallurgical and Mineral Engineering, School of Engineering and Applied Science, Columbia University (1982); Adjunct Professor of Materials Science, Department of Mining, Metallurgical and Mineral Engineering, School of Engineering and Applied Science, Columbia University (1983); Professor of Materials Science, Department of Mining, Metallurgical and Mineral Engineering, School of Engineering and Applied Science, Columbia University (1985); and Professor of Applied Physics, Department of Applied Physics and Applied Mathematics, School of Engineering and Applied Science, Columbia University (1998).

9. Professor Neumark was elected as a Fellow of the American Physical Society in 1982 and is also listed as a Notable Woman Physicist on an archival website of the American Physical Society. She is also listed in Who's Who in America.

10. In her career spanning approximately 50 years, Professor Neumark's scientific research in both academia and industry has focused on the field of luminescence with primary emphasis on the application of semiconductor diodes to lighting.

LIGHT EMITTING AND LASER DIODES

11. An LED, or light emitting diode, is a semiconductor diode that converts electricity into light. Semiconductors are materials with resistivities in the range between metals and insulators, in which the electrical charge carrier concentration increases with increasing temperature over some temperature range. Semiconductors are useful for electronic purposes because they have the ability to carry an electric current by electron propagation, known as n-type, or hole propagation, known as p-type.

12. Unlike traditional lighting sources, such as incandescent light bulbs, LEDs do not have a filament that invariably burns out over a short time. LEDs are more efficient than traditional incandescent lighting sources, are extremely rugged and can operate without interruption for long periods of time, substantially exceeding the life of incandescent lights.

13. A laser diode ("LD") is a semiconductor device that produces coherent radiation (in which the waves are all at the same frequency and phase).

14. Despite the recognized potential of LEDs and LDs, their commercial use was initially limited because it was not commercially feasible to produce LEDs and LDs in green or other high spectral ranges.

15. LEDs have increasingly gained general acceptance as a superior lighting source for a large number of products. LEDs are commonly used, among other things, to illuminate the instrument panels of airplanes and motor vehicles, provide the backlighting of cellular telephones and in traffic lights and large billboards.

16. LDs have gained wide acceptance in a wide variety of consumer products such as Compact Disc and Digital Video Disc Players, and also have recognized military applications.

17. Billions of dollars in revenues annually are generated by sales of LEDs and LDs in the United States and abroad, and such sales are expected to increase exponentially as more and varying uses of LED and LD technology are developed.

THE PATENTS AT-ISSUE

18. On February 27, 1990, U.S. Patent No. 4,904,618 (the “‘618 Patent”) entitled “Process for Doping Crystals of Wide Band Gap Semiconductors” was duly and legally issued to Professor Neumark.

19. On October 12, 1993, U.S. Patent No. 5,252,499 (the “‘499 Patent”) entitled “Wide Band-Gap Semiconductors Having Low Bipolar Resistivity and Method of Formation” was duly and legally issued to Professor Neumark.

20. The processes described in the ‘618 Patent and ‘499 Patent make it commercially feasible to produce LEDs and LDs in green or other high spectral ranges.

COUNT ONE – ‘618 Patent

21. Professor Neumark incorporates by reference paragraphs 1 through 20 above.

22. Defendant Cree, by engaging in the unauthorized manufacture, importation, use, sale and/or offer for sale of LEDs and/or LDs created using the processes described and claimed

in the '618 Patent, has committed acts of direct, contributory and/or inducement of infringement of claims of the '618 Patent.

23. Upon information and belief, Defendant Cree knew of the '618 Patent and/or should have known about this patent in performing its due diligence prior to initiating and expanding its infringing activities.

24. Defendant Cree's infringement of one or more of the claims of '618 Patent has been willful and deliberate, entitling Professor Neumark to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

25. Defendant Cree's infringement of Professor Neumark's exclusive rights under the '618 Patent, unless enjoined by this Court, will continue to harm Professor Neumark's rights under those patents, causing irreparable harm for which there is no adequate remedy at law.

26. Professor Neumark has and will continue to suffer damages as a result of defendant Cree's infringing activities.

COUNT TWO – '499 Patent

27. Professor Neumark incorporates by reference paragraphs 1 through 20 above.

28. Defendant Cree, by engaging in the unauthorized manufacture, importation, use, sale and/or offer for sale of LEDs and/or LDs created using the processes described and claimed in the '499 Patent, has committed acts of direct, contributory and/or inducement of infringement of claims of the '499 Patent.

29. Upon information and belief, Defendant Cree knew of the '499 Patent and/or should have known about this patent in performing its due diligence prior to initiating and expanding its infringing activities.

30. Defendant Cree's infringement of one or more of the claims of '499 Patent has been willful and deliberate, entitling Professor Neumark to increased damages under 35 U.S.C. § 284 and to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

31. Defendants Cree's infringement of Professor Neumark's exclusive rights under the '499 Patent, unless enjoined by this Court, will continue to harm Professor Neumark's rights under those patents, causing irreparable harm for which there is no adequate remedy at law.

32. Professor Neumark has and will continue to suffer damages as a result of defendant Cree's infringing activities.

PRAYER FOR RELIEF

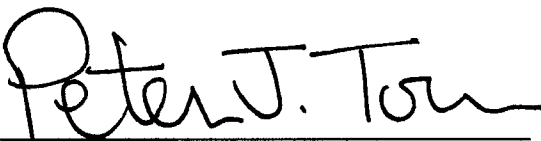
WHEREFORE, Plaintiff respectfully requests that this Court:

- A. award damages sufficient to compensate Plaintiff for infringement of the '499 and '618 Patents, but in no event less than a reasonable royalty, together with interest and costs;
- B. issue a permanent injunction enjoining and restraining defendant Cree, its officers, agents, servants, employees, and attorneys, and all persons acting from, with, by, through, or under them, or any of them, from infringing one or more of the claims in either the '499 or '618 Patents;
- C. enter an order declaring this to be an exceptional case pursuant to 35 U.S.C. §§ 284 and 285 and awarding to Plaintiff increased damages and attorneys' fees and costs; and
- D. grant Plaintiff such other and further relief as this Court deems just and proper.

Dated: June 24, 2005

Respectfully submitted,

SIDLEY AUSTIN BROWN & WOOD LLP

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